DOCUMENT RESUME

ED 328 054 EC 300 019

AUTHOR Greenwood, Charles R.; Arreaga-Mayer, Carmen
TITLE Preparation for Leadership Personnel: Post-Doctoral Program in Research with Minority Handicapped Children at the Juniper Gardens Children's Project. Final Report.
INSTITUTION Kansas Univ., Lawrence. Dept. of Special Education.
SPONS AGENCY Department of Education, Washington, DC.
PUB DATE Jul 90
CONTRACT G008630071
NOTE 26p.; For related documents, see ED 288 296-297.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Disabilities; *Educational Research; Elementary Secondary Education; Higher Education; *Leadership; *Minority Group Children; Postdoctoral Education; Program Development; Program Effectiveness; Program Evaluation; Researchers
IDENTIFIERS *Juniper Gardens Childrens Project

ABSTRACT

This final report describes a federally funded project which provided post-doctoral training in research with minority, handicapped children at the Juniper Gardens Children's Project, University of Kansas. Covered in the report are the project's objectives, philosophy and assumptions, results, training activities, activities completed, program evaluation procedures, and an analysis of project impact. A case description of a particularly prolific post-doctoral trainee is also presented. Evaluation data indicate that, individually and as a group, project trainees were participating heavily in research-oriented activities. All 18 trainees were engaged in work directly related to teacher training and service delivery to minority group handicapped children and their families. Trainees also showed excellent productivity in terms of publications, grants funded, and other indicators of research leadership. (22 references) (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

JUL 17 REC'D

ED328054

11/8

Preparation for Leadership Personnel:

Post-Doctoral Program in Research with Minority Handicapped Children at the Juniper Gardens Children's Project

Charles R. Greenwood, and Carmen Arreaga-Mayer

Final Report

The University of Kansas

84-029D Leadership Personnel

G008630071

July, 1990

EC 300019

Table of Contents

	Page
Table of Contents	2
Abstract	3
Project Narrative	4
Introduction	4
Purpose	4
Philosophy and Assumptions	4
Results and Benefits	5
Training Activities	5
Project Semester Timeline	6
Activities Completed Each Year ('83-'86)	8
Management and Evaluation	13
Follow-up Data	16
Current Follow-up	17
Extended Follow-up	18
Case Description	21
Significance and Impact	22
References	24

Abstract

This final report covers project G008630071 and provides an extended report on post-doctoral trainees from an earlier project, G008300889. These projects were Leadership Personnel Preparation projects completed at the Juniper Gardens Children's Project, University of Kansas. The projects provided post-doctoral training in research with minority, handicapped children. Covered in the report are the objectives, procedures, and methods of evaluation. Additionally, follow-up data on the research and accomplishments of trainees is reported. The data indicate that individually and as a group, past trainees are participating heavily in research oriented activities. Of 18 trainees, 10 (56%) were minorities (Black, Hispanic), 1 was handicapped, and all are engaged in work directly related to teacher training and service delivery to minority group children and their families. For example, 72% ($\underline{N}$ = 13) are employed in research positions in institutes, centers, and academic departments. Trainees also show excellent productivity in terms of publications, grants submitted and funded, and other important indicators of research leadership. Additionally, past trainees are engaging in roles such as field readers, associated editors, and agency grant reviewers and panelists, further demonstrating their leadership roles in research at the national level.

Project Narrative

Introduction

This document is a final report for the project entitled, Post-Doctoral Training in Research with Minority Handicapped Children at the Juniper Gardens Children's Project (G008630071), a 36-month personnel preparation project funded by the Special Education Program, U.S. Office of Education. The project was funded for the period of June 1, 1986 through May 31, 1989. This final report provides a summary of the accomplishments and follow-up activities covering the three-year period of this project and an extended follow-up report for post-doctoral fellows supported under a prior three-year award (G008300889, 1983-1990). The reader is referred to the original proposal for a complete statement concerning this project (Greenwood & Arreaga-Mayer, 1985: Grant # G008630071, Project # 029DH60019).

Purpose

The purpose of this project was to provide post doctoral training in research with direct relevance to the education of minority and nonminority handicapped children in urban school settings. The focus of this project was to provide research training to doctoral level minority group professionals currently employed, and functioning in leadership positions in the field of special education.

This project was in direct response to recent analyses of expressed needs of special education consumer groups to prepare professionals with knowledge, specialized skills, and understanding of minority and ethnic group students in order to upgrade the profession, develop promising new practices, and eliminate the shortage of teachers for this population of handicapped children (Sontag, Button, & Hagerty, 1982). Moreover, the training of research personnel was in response to the relatively limited support given to the training of the field's leadership core in the past. Since the development of minority group professionals of all types (i.e., teachers, administrators, researchers, specialists, etc.), has also been at the forefront of federal personnel preparation efforts for the last nine years, this project addressed fundamental needs by providing post-doctoral fellowships to minority group professionals of the highest caliber and in positions to diffuse research training into effective practice with handicapped children.

The project was designed to provide a one-year post-doctoral fellowship in research to select minority group post-doctoral professionals currently in leadership roles in special education. The major objective of the project was to increase their (a) knowledge of research findings and methods, (b) skills using innovative research practices related to black minority group children in urban school settings, and (c) applications of research in their home setting.

Philosophy and Assumptions

This program was based upon the assumption that specialized training and skills are necessary to provide appropriate educational experiences for minority group handicapped children. Moreover, these particular experiences and skills cannot be assumed to naturally occur only in minority group professionals nor can they be expected to necessarily develop as a function of just long experience in the field. Rather, the position was taken that a body of information and technology exists, that more is needed, and that various researchers are currently in the process of discovery and development of this technology at the Juniper Gardens Children's Project at the University of Kansas and elsewhere. Thus, this content can be translated into instructional objectives and communicated to professionals in special education. It was also assumed that this knowledge and these skills can be effectively applied to instruction designed to improve the educational experiences and outcomes of exceptional children. Moreover, better educational outcomes will be obtained with the application of this knowledge and these skills than would occur without them.

Results and Benefits

The immediate benefit of this project was the post-doctoral training for professionals. The training provided an opportunity for nine post-doctoral fellows to accelerate their attainment of qualifications necessary for entry into the research leadership of the profession by: (a) developing new knowledge and research skills, and (b) developing their own research applications and publications. This is expected to benefit their careers and the efforts of those with whom they work and serve. The magnitude of this benefit can be appreciated in light of the relatively small number of research professionals produced in our training institutions and the likelihood that they will continue as professional researchers when professional opportunities with greater financial security will certainly be available to them (i.e., administration). These research trainees are and will continue to effect immediate and continuing impact on the training of minority students.

The long term benefits will be the research produced by these persons now, years later, and its effect on services to minority handicapped children. The project has been an investment in the development and maintenance of a research minority group leadership in the profession. The research fellows will provide the innovations, discoveries, breakthroughs, and practices that will influence the upcoming generations of professionals concerned with handicapped children. These professionals will further the educational goals of children by: (a) training the teachers, both minority and non-minority, who will instruct minority handicapped children, (b) by training the administrative personnel who will supervise these teachers, (c) by engaging in the research necessary to improve instruction and services for these children, and (d) by advocating such practices.

Training Activities

A major effort of the research conducted at Juniper Gardens Children's Project with minority group handicapped children over the past 25 years, has been to identify the salient objectives to which instruction and intervention

should be applied (Walker, Hall, & Greenwood, 1989). This is a process that requires the appropriate uses of assessment, task analysis to further refine and sequence objectives, and analysis of the instructional procedures that maximally effect change in these objectives. Post-doctoral fellows worked directly in the determination and analysis of instructional objectives and procedures for minority handicapped children as part of this project. Specifically, they were exposed to methods of research that are ongoing at Juniper Gardens Children's Project. This occurred as the result of both instruction and practicum experiences in schools and classrooms with minority handicapped children and their teachers in Kansas City, Kansas and Kansas City, Missouri and Shawnee Mission, Kansas. They were exposed to classroom and practicum experiences in the following areas: (a) minority issues in research, (b) intervention practices, (c) instructional procedures, (d) training methods, (e) assessment practices, (f) theoretical models, (g) research methods, and (h) computer applications that have a direct bearing on the education of handicapped children. The specific training content can be reviewed in the original proposal (See section 3, Fellowship Program Plan, pp. 30-44).

The following sections will provide a summary report of the accomplishments and follow-up activities completed during this grant period (see Table 1).

Table 1

Project Semester Timeline

January - May 1986

1. Planned project with cooperating/affiliated units and programs
2. Developed and submitted proposal
3. Proposal review completed by SEP
4. Began formal and informal recruitment

Core Activities (Funded Activities June - August 1986)

1. Planned course work
2. Selected four qualified Fellows
3. Negotiated Fellows' release from current responsibilities to attend program
4. Developed course work and necessary materials (i.e., objectives, outlines, and materials for Fall semester)

Fall Semester - September - December 1986

1. Began Fall semester activities
2. Completed course planning and development for Spring semester
3. Completed Fall semester evaluation
4. Finalized course work and necessary materials for Spring semester

Spring Semester - January - June 1987

1. Began Spring semester activities
2. Arranged practicum site placements
3. Began recruitment of Group 2 Fellows
4. Completed management activities
5. Attended National Conferences to present research (CEC Minority Symposium and Association for Behavioral Analysis)
6. Completed follow-up and other evaluation activities
7. Completed annual report and continuation application to SEP

Summer Semester - June - August 1987

1. Revised course work related to Fall and Spring semesters based upon evaluation data
2. Completed selection of three trainees for Group 2
3. Negotiated Fellows' release from current responsibilities to attend program.

Year II

Fall Semester - September - December 1987

1. Began Fall semester
2. Completed Fall semester courses and practicum
3. Completed planning for follow-up of Group 1
4. Finalized Spring semester plans
5. Completed evaluation activities

Spring Semester - January - June 1988

1. Began Spring semester
2. Arranged practicum site placements
3. Began recruitment procedures for Group 3
4. Completed management activities (follow-up and other)
5. Attended National Conference to present research (Association for Behavioral Analysis)
6. Completed evaluation activities
7. Completed annual report and continuation application for SEP

Summer Semester - June - August 1988

1. Revised course work for Fall and Spring semesters based upon evaluation data
2. Completed selection of four Fellows for Group 3
3. Negotiated Fellows' release from current responsibilities to attend program

Year III

Fall Semester - September - December 1988

1. Began Fall semester
2. Completed Fall courses and practicum
3. Completed plans for follow-up of groups 1 and 2
4. Finalized Spring semester plans
5. Completed evaluation activities

Spring Semester - January - June 1989

1. Began Spring semester
2. Arranged practicum site placements
3. Completed management activities, follow-up and other
4. Attended National Conferences to present research (National Council for Exceptional Children Conference and the Association for Behavioral Analysis)
5. Completed evaluation activities

Summer Semester - June - August 1989

1. Completed final project report for SEP

Year IV (Funds not requested for these activities)

Fall Semester - September - December 1989

No activities

Spring Semester - January - June 1990

1. Complete extended follow-up phase for all three groups
2. Complete an additional report covering extended follow-up results

---

Activities Completed

June 1, 1986 - May 31, 1989

The overall design of the project consisted of three major components: (a) preparatory, (b) core training, and (c) follow-up activities after the one year fellowship.

Preparatory Activities. Preparatory activities included planning activities, materials review, proposal review, and recruitment of post-doctoral Fellows. The purpose of these preparatory activities was to: (a) ensure effective management of the program; (b) evaluate and select appropriate program content for fellow's utilization and experiences; and (c) develop procedures to evaluate important project outcomes.

Recruitment. Recruitment was conducted through both formal and informal communication networks. On a formal basis information concerning the program was distributed to: (a) The KU Affirmative Action Group; (b) the CEC Minority Concerns Office (Reston, VA); (c) minority personnel groups (CEC Black Caucus, The Association for Behavior Analysis Placement Services, The National Association for Bilingual Education); (d) the National Association of Equal Opportunity in Higher Education, Washington, DC; (e) published advertisements in National Journals; (f) over two-hundred letters were sent out to major National Universities. Applications were received through formal and informal inquires regarding the Fellowship Program, in the form of letters and telephone calls to project directors. At the informal level, prospective Fellows were contacted by Juniper Gardens faculty and encouraged to apply. Another informal source of recruitment was faculty contact with minority group professionals in the course of their work at international, national and local levels.

A standing selection committee was organized for the purpose of reviewing applications and selecting Post-Doctoral Fellows. The committee was composed of research faculty at the Juniper Gardens Children's Project. There were seven members on the committee representing staff, post-doctoral fellows, students, minorities and non-minorities (See Table 2).

Table 2

Selection Committee Members

Name	Position	Race	Sex
Charles R. Greenwood	Project Director/Staff	W	M
Carmen Arreaga-Mayer	Project Director/Staff	H	F
Joseph Delquadri	Project Director/Staff	W	M
Judith J. Carta	Project Director/Staff	W	F
R. Vance Hall	Project Director/Staff	W	M
Verona Hughes	Graduate Student	B	F
Marleen Elliott	Post-Doctoral Fellow	B	F

Note: B = Black, H = Hispanic, W = White

Selection of Post-Doctoral Fellows. As a result of the above stated activities three groups of fellows were selected (see Table 3).

Table 3

Fellows Selected and Participating Each Year

Post-Doctoral Year	Total # Applicants	Selected Fellows	Race	Sex
Year 01	5	Granger Dinwiddie	B	M
		Barbara Terry-Campbell	B	F
		Richard Couch	W	M
Year 02	4	Janis Bulgren	W	F
		Sylvia Robinson	B	F
		Nancy Winn*	W	F
Year 03	6	Nancy Winn (2nd year)	W	F
		Jane Doherty**/Ilene Schwartz***	W W	F F
		Marleen Elliott	B	F

B = Black (50%) W = White (50%)

* Nancy Winn was physically handicapped

** Jane Doherty resigned as a Post-Doctoral Fellow on February 28, 1989

*** Ilene Schwartz was selected for the remaining portion of the 1988/89 Post-Doctoral year (March-May)

Core Training Activities. The core training activities were designed so that Fellows took course work and practicum experiences related training in agreement with the objectives and purpose of the project (See original proposal, p. 41). The core activities consisted of both Fall and Spring semester post-doctoral training at the Juniper Gardens Children's Projects. Fellows registered for six credit hours for the Fall and Spring semesters, a total of 12 hours, spanning each one year fellowship. Also fellows were involved in practicum training both semesters and in independent research during the second semester (See Tables 4, 5).

Table 4

Content/objectives as Implemented in Specific Course Work

Content/Objective Areas	Dept.	Number	Course Title	Credit
Fall Semester Program				
I,II,III - Eco-behavioral Models, Assessment, and Process-Product Design	SPED	998	Seminar in Ecobehavioral Assessment & Process-product Design	3
VIIIA - Practicum: Participation with Handicapped Children			Participation with Handicapped Children	3
VIIIB - Practicum: Proposing Research			Practicum with Handicapped Children	3
VI - Computer Methods	SPED	998	Topics in Research: Statistical Packages	3
Spring Semester Program				
IV - Design of Instruction	SPED	998	Seminar in Procedures for Increasing Academic Performance	3
V - Minority Group Issues and Research in Special Education	SPED	998	Seminar in: Minority Issues and Research	3
VII - Research Communications			Pro-Seminar in Research Communications	3
VIIIC - Practicum: Conducting Research	SPED	949	Individual Research	3

September - December. Fellows devoted the first half of their Post-Doctoral year familiarizing themselves with the literature and research procedures utilized by the Juniper Gardens staff. Fellows enrolled in six credit hours of course work and practicum training related to the objectives and purposes of the project (See Original Proposal, p. 41). These activities were structured in an individualized design format, allowing the trainees an opportunity to concentrate on required reading and research as well as their particular areas of expertise and interest. Fellows were engaged in the writing of a literature review paper on a topic addressing eco-behavioral variables of learning.

January - May. The second half of the post-doctoral year also consisted of six credit hours and practicum experiences related to the objectives and purposes of the project (See Original Proposal, p. 41). During the second semester of their training, Fellows were actively involved in the development and implementation of individual research, in the writing of grants in their particular areas of interests and/or in the writing of articles for publication. They also participated in local and national conferences to present and discuss research applications.

Table 5

Summary of Post-Doctoral Fellows' Coursework Performance

Program Content Area	Number of Fellows Demonstrating Proficiency per Objective Area
1. Eco-behavioral Theory Models and Research	9
2. Eco-behavioral Assessment Methodology	9
3. Process-Product Research Design	9
4. Design of Instruction	9
5. Minority Group Issues and Research	9
6. Computer Methods	9
7. Research Communications	9
8. Practicum in Research	9

Management and Evaluation

In order to implement these components successfully, it was necessary to have a management and evaluation plan (See Section 3 Original Proposal, pp. 45-53). The Directors conducted monthly meetings, and other meetings as were necessary over the course of the project to conduct appropriate training, implementation, and evaluation steps as were required to meet the objectives of the project. Both of the Directors were housed at the Juniper Gardens Children's Project School Research Unit which insured close contact over the entire project. A primary objective of these meetings was to insure timely completion of project activities according to Semester timelines. The Director was responsible for initiating, planning, monitoring implementation, and directing evaluations. The Co-director and Training Coordinator was also responsible for steps in implementation such as communication with project faculty, development of course outlines and materials, arrangements with local schools for participation by Fellows, etc. The Training Coordinator and the Fellows met on a weekly basis to review the Fellows' progress and troubleshoot any problem that became evident.

The project's objectives were developed to insure timely completion of key activities and assure a successful project implementation. The project's objectives provided the milestones and achievement markers across time. The objectives and their completion insured that Fellows were provided program experiences as described in the Program Plan, and that the quantity and quality of these experiences and outcomes were described and evaluated according to the Evaluation Plan. With these plans and objectives, it was possible to assure high fidelity in implementation of the training program.

According to the outlined steps of the project, the activities for this grant period have been implemented according to the original timetable (see original proposal, Table 6, pp.27-29). There were, however, two modifications or changes in the program from the Original Proposal:

1. Nancy Winn's second year appoint to the Post-Doctoral Fellowship Program.
2. Dr. Jane Doherty was granted a fellowship at the Juniper Gardens Children's Project beginning November 29, 1988. She resigned her fellowship on February 28, 1989. Dr. Ilene Schwartz was selected to replace Dr. Doherty for the remaining fellowship period.

Evaluation Plan

The evaluation plan focused upon two major levels with specific procedures applied to each. The overall purpose of evaluation was to address the issue of quality throughout the training program. A secondary purpose was to provide the project staff and Fellows information related to their progress in implementing (staff) and completing (Fellows) the program. Thus, evaluation data was used to revise the program, improving it over time and to solve problems which became evident through the evaluation process. A summative evaluation and report were completed on an annual basis. However, specific formative evaluation procedures were ongoing throughout each semester as will be described. The evaluation design also included information from multiple persons involved in the project at multiple points in time, including the extended follow-up assessment of Fellows' continuing

research efforts in their home settings. Thus, evaluation measures consisted of a mixture of objective indices of Fellows' mastery of program content as well as subjective indices of Fellows' performance in practicum settings (see Table 5). A central theme in the design was a demonstration that instruction received by Fellows was functionally related to their gains in knowledge, performance, and satisfaction with the program using single subject design methods.

Evaluation Objectives and Rationale

1. To insure that all management objectives and activities were completed in a timely fashion as stated in the Management Plan (Section 4, page 45-53 of Original Grant).

Rationale: This insured quality control in implementing the training program as designed.

2. To insure that all program objectives and activities were completed by Fellows and an individual progress record was maintained for each.

Rationale: Both subjective and objective data concerning Fellows' progress in the program are necessary to demonstrate the benefit of the program and its contribution to their development as research leaders.

Evaluation Procedures

Objective 1 Procedures. A list of management objectives was developed and matched to the time it was due for completion (project timeline). Project staff dated and initialed the actual completion date of the activity/objective and the list remained on file as a running account of the objectives implemented. Monthly projections of budgeted monthly expenses were also plotted against project expenditures over time in order to provide project staff with a constant analysis of the rate of expenditures and their appropriateness over the project. These resource data in conjunction with the master management list, provided both program and resource control at the project staff level.

Objective 2 Procedures. Measures of Fellows' performance in and satisfaction with the program was developed in specific content areas as dependent measures of training outcome. These measures included: (a) Fellows' mastery of course objectives and materials (see Table 6), (b) the products (i.e., papers, publications, and reports) that they developed (these were counted and evaluated for quality according to specified criteria, (c) ratings of Fellows' performance in practicum experiences obtained from the various instructors and persons with whom they work, and (d) Fellows' ratings of the quality of their training experiences in all areas (i.e., courses, practicum, interaction with staff, opportunities to achieve their objectives).

Table 6

Summary of Measurement and Sources

Measures (and Types)	Sources of Evaluation
Quizzes (objective)	Instructors
Exams (objective)	Fellows
Written Projects (objective)	Personnel served by the Project
Performance Quality Ratings (subjective)	Persons in related programs
Satisfaction Ratings	Minority Handicapped (subjective)
Telephone Interviews	Fellows
Vita Analysis	Fellows

In order to obtain a causal analysis of instructional effects at the course work level, an alternating units design (based upon the alternating treatments design - Barlow & Hayes, 1979; Ollendick, Matson, Esveldt-Dawson & Shapiro, 1980; Ulman & Sulzer-Azaroff, 1975) developed at the Juniper Gardens Children's Project in previous personnel preparation projects, was used (Greenwood et al., 1982). This design is based upon the assumption that if instruction is effective students will perform best on quizzes covering material on which they have received instruction than they will on quizzes on which they have not received instruction. The alternating treatments design was used to provide a causal analysis of the effects of instruction by quizzing the student regularly on material for which the were prepared and occasionally on materials on which they were not prepared, but prepared sometime later in the course.

An individualized record of each Fellow's data base was maintained by project staff on computer files. This file is useful first as an archive of accomplishment and information concerning the Fellows, but also enabled the project staff to develop group or aggregate summaries of Fellows by project year and overall. A summary of the rather extensive set of products (e.g., grants, papers, publications, etc.) are provided in Table 7.

Post-Doctoral Fellows Program Evaluation

To obtain a comprehensive statement of the post doctoral training experience from each fellow a survey was developed. This document was part of the overall project evaluation plan (see Original Proposal, page 45-53, Greenwood & Arreaga-Mayer, 1985). The survey was organized within five major ,pa

areas in order to cover the scope of project activities that trainees experienced. These activities were designed to increase trainees skill areas related to leadership in research aspects of the field.

Follow-up Data and Results

In order to demonstrate the impact or outcome of the project on research leadership, we present in this report a summary of data concerning the accomplishments, contributions, and current activities of trainees.

Eighteen post-doctoral fellows have received training at the Project over the past six years. Table 7 provides a breakdown of these persons by ethnic/racial background, sex, and handicapping conditions. These post-doctoral recipients were supported by leadership personnel preparation grants from the Office of Special Education and Rehabilitation Services (OSERS). Training was provided in research concerning educational interventions for use with minority and non-minority students with disabilities in urban school settings. Over half of these post-doctoral applicants were minority professionals employed and functioning in leadership positions in the field of special education. All of these former trainees are currently conducting research with direct impact on the services provided minority-group students.

The post-doctoral training at the Project provided the opportunity for post-doctoral fellows to accelerate their attainment of qualifications necessary for entry into positions where they will conduct research.

Table 7

Ethnic Background of Prior Post-Doctoral Fellows

	Ethnic Background					
Grant	Anglo	Black	Hispanic	Total Minority	Total	Total With Handicaps
1983	4	3	3	6	10	0
1986	4	4	0	4	8	1
Total	8	7	3	10 (56%)	18	1

The current professional status of the 18 postdoctoral trainees is described in Table 8. Sixty-seven percent of the trainees work in a research setting and hold a research appointment. Fifty-six percent hold academic appoints and undertake university level teaching. Six percent of the group work in an LEA setting and one works in a private clinic setting that serves students with special needs.

Table 8

Post-Doctoral Professional Status Summary

		Professional Status			
		University Level		Service Level	
Trainee	Year	Research	Teaching	LEA	Clinic
1. Arreaga	83-84	1			
2. Carta	83-84	1	1		
3. Dorsey	83-85	1			
4. Verna*	83-84		1		
5. Bailey	84-85		1		
6. Nelson	84-85	1	1		
7. Rotholz	84-85	1			
8. Benson	85-86	1	1		
9. Chavez	85-86		1		
10. Madrid	85-86	1	1		
11. Terry	85-87	1			
12. Couch	86-87	1	1		
13. Dinwiddie	86-87	1	1		
14. Bulgren	87-88	1			
15. Robinson	87-88			1	
16. Winn	87-89		1		
17. Schwartz	88-89	1			
18. Elliott	88-89	1			
Totals		13	10	1	0
%		72%	56%	6%	0%

Current Employment of Year 01 Fellows

Dr. Richard Couch is a Behavior Specialist with the ACE Academy, a secondary level program for learning disabled and emotionally disturbed students located in Hamden, Connecticut.

Dr. Granger Dinwiddie is an Assistant Professor at California State University at Stanislas in the Departments of Advanced Studies for Teacher Training and Special Education. He is involved in teaching courses in the areas of Psychology and Special Education. Dr. Dinwiddie also works as a Psychologist consultant for the Stockton Development Center (Hospital) providing treatment and evaluating programs.

Dr. Barbara Terry-Campbell is an Expert Systems Computer Program Developer for the Juniper Gardens Children's Project; Bureau of Child Research. She has collaborated in the development of the Classwide Peer

Tutoring Advisor. This is a computerized classwide peer tutoring advisor for use by classroom teachers and teacher consultants implementing classwide peer tutoring. The Advisor is one of three components which make up the total product. These components include (1) the Advisor, (2) a User's Manual describing use of the Advisor, and (3) a Manual of Procedures for teachers. Together these components are a system designed to support all major operations involved in selecting, using, and maintaining quality control over a classwide peer tutoring program established by a classroom teacher.

Current Employment of Year 02 Fellows

Dr. Janis Bulgren is a Research Associate and Program Coordinator for INROADS, a grant with the Learning Disabilities Institute at the University of Kansas. INROADS is a grant evaluating and monitoring the transition of minority handicapped students from secondary school levels to post-secondary levels. She is also the Program Coordinator for a project in development and implementation of mathematics strategies for youth with learning disabilities.

Dr. Sylvia Robinson is a Research and Program Evaluator with the Kansas City, Missouri School District. Her position involves the use of quantitative and analytical research and assessment to evaluate instructional technology in the Magnet School Programs. The Magnet School Program is a federally mandated desegregation project. She is also involved in the development and validation of computerized observational systems to record classroom performance.

Current Employment of Year 03 Fellows

Dr. Nancy Winn is a visiting lecturer at the University of Missouri at Kansas City, Department of Educational Psychology and Research. Her coursework included the implementation of effective instructional procedures with minority and nonminority group student.

Dr. Ilene Schwartz is a Research Associate and Program Coordinator with the Bureau of Child Research, University of Kansas in the following grant projects; Programming of successful classroom transition: Assessment of children's survival skills and classroom requirements; and the Validation of a classroom survival skills intervention package: Measuring short- and long-term effects on young children with handicaps.

Dr. Marleen Elliott is a Research Assistant at the Juniper Gardens Children's Project, University of Kansas participating in the development and implementation of strategies to increase student responding in reading.

Extended Follow-up

The purpose of this phase was to allow for a follow-up assessment of Fellows' training experiences in their "home settings". This activity provided information about the generality of the Program's effects for all Past Doctoral Fellows participating in both of our Leadership Preparation Grants, 1983-1986 and 1986-1989 funding periods.
,pa

The research impact and productivity of this group can also be described. At total of 325 scholarly products have been produced by the 18 trainees by the date of this application (See Table 9). This includes a total of 38 grant proposals, 40 journal articles, 56 chapters, 112 presentations, and 79 research projects. The average productivity rate per trainee per year was 5.8, 4.5, 6.8, 6.8, 6.3, and 8.0 for each group, respectively.

Table 9

Post-Doctoral Trainees Impact Summary

		Research Productivity					
Trainee	Year	Grants	Articles	Chapters	Presentations	Projects	Total
1. Arreaga	83-84	5	3	7	13	8	36
2. Carta	83-84	11	12	15	17	8	63
3. Dorsey	83-85	2	1	1	7	5	16
4. Verna*	83-84	0	0	1	0	0	1
5. Bailey	84-85	2	0	1	2	2	7
6. Nelson	84-85	1	1	2	8	5	17
7. Rotholz	84-85	3	3	5	11	8	30
8. Benson	85-86	1	3	3	0	5	12
9. Chavez	85-86	1	0	11	9	2	23
10. Madrid	85-86	2	3	2	5	6	18
11. Terry	85-87	5	2	5	8	8	28
12. Couch	86-87	1	5	0	14	7	27
13. Dinwiddie	86-87	1	2	1	5	3	12
14. Bulgren	87-88	1	1	1	4	2	10
15. Robinson	87-88	0	1	1	2	2	6
16. Winn	87-89	0	0	0	1	2	3
17. Schwartz	88-89	1	3	0	2	2	8
18. Elliott	88-89	1	0	0	4	3	8
Totals		38	40	56	112	79	325

Note: *Unable to locate for follow-up interviews

Several other qualitative points can be made concerning the impact of these trainees on the field.

Impact on Hispanic Handicapped Children. Four of our trainees are currently having a major impact on the research concerning the education of Hispanic children with and without handicaps.

Dr. Arreaga-Mayer (University of Kansas) has authored and co-authored several important publications including an article reviewing effective instructional practices for minority students published in the journal of the National Association for Bilingual Education (Arreaga-Mayer & Greenwood, 1986). In addition, she has co-directed a field-initiated research grant entitled, "Increasing the teaching/learning efficiency in the mainstream of students with learning disabilities", in which effective practices have been applied to students with mild handicaps who are mainstreamed. She is currently the project Director for a grant, "Development and Validation of an Evaluation Instrument to Measure Instructional Effectiveness in Bilingual Special Education Programs" (Arreaga-Mayer, Carta & Greenwood, 1990). This project seeks to develop an observational assessment methodology for use in the evaluation of bilingual special education programs. She has just recently received a three-year Minority Investigator Award from the National Institute of Child Health and Human Development.

Dr. Dennis Madrid (University of Southern Colorado) has completed a number of research studies in Colorado related to peer tutoring procedures which increase the learning of low-achieving, bilingual students (Madrid, in press). Since leaving his post-doctoral year, he has submitted two grants to OSERS and has served as a grant reviewer-panelist. **Dr. Gene Chavez** (Center for Intercultural Communications, Inc.), has been coordinating research and technical assistance services related to the education of minority populations. Most recently he has developed a research program around the Latino Family Life Education Curriculum Series, funded by the Carnegie Corporation of New York.

Dr. Christopher Nelson (University of New Mexico-Evaluation Assistance Center) has authored and coauthored an increasing number of research and evaluation publications (Nelson, 1987). He is currently involved in technical assistance programs in support of Title VII, Bilingual Education Programs. Others are contributing to the research concerning black children with handicaps.

Impact on Black, Handicapped Children. Five of our trainees are currently having a major impact on the research concerning the education of Black children with and without handicaps.

Dr. Granger Dinwiddie (California State University at Stanislas) is currently assistant professor in the School of Education's area of Advanced Studies in Education and Special Education. He has recently published in the Journal of Applied Behavior Analysis (Greenwood, Dinwiddie et al., 1987 and the School Journal of Education (1988).

Dr. Barbara Terry (University of Kansas) is currently conducting research in the development of effective instructional practices at the middle-school level and also pursuing research on the use of technology as a teacher-training tool. A recently published chapter describing her research "Performance-based assessment of depriving environments" appeared in Neustead, Irvine, & Dann (Eds.), Human Assessment: Cognition and Motivation (1986). She is currently co-directing an OSER's grant developing expert systems
approaches to peer-mediated intervention. This year she has submitted this year two grants to the field-initiated research program of OSERS.

Dr. Marleen Elliott (University of Kansas) is currently conducting research on the teaching of reading to minority-group students with mild handicaps. She is currently developing a manual of procedures for use in teacher training (Elliott & Delquadri, in preparation).

Dr. Gwen Benson (Georgia Department of Education) is directing research and technical assistance for the Department in the area of families and community-based programs. She was recently awarded an LEA research grant entitled, ACCEPTS, which is a community concept for educating parents, teens, and siblings of children with severe and profound handicaps. Her recent publications include "The education of black deaf children" (Journal of Multicultural Counseling and Development, 1988) and "A unit plan for siblings of handicapped children" (Teaching Exceptional Children, 1987).

Dr. David Rotholz (University of Minnesota, Institute of Disability Studies) is currently in charge of outreach program research at the Institute. He is involved in evaluation research concerning outreach services affecting black children and families. He is participating in the development of plans to develop a community-based education and treatment program, like the Kansas Juniper Gardens Children's Project in Minneapolis, MN. He recently published a paper based on his post-doctoral work demonstrating the use of ecobehavioral analysis in classroom programs for children with autism and developmental disabilities in the Journal of Special Education (Rotholz, Kamps, & Greenwood, 1989).

Case Description: Individual Leadership Impact

One of our most prolific post-doctoral trainees has been **Dr. Judith J. Carta** (University of Kansas). She completed her post-doctoral year in 1983-84. Before this year, she was a doctoral student in the Department of Special Education at the University of Kansas, the co-director of the high-risk preschool at the University of Kansas Medical Center, and part-time instructor at the Johnson County Community College in Overland Park, KS. We briefly provide a sketch of the increasing impact of her research on the direction of early childhood special education and her increasing leadership role in the field.

One of her post-doctoral years projects was the submission of a field-initiated research proposal (Carta, 1984-87) that was funded that year. Her application proposed to adapt ecobehavioral assessment as was then being applied at Juniper Gardens to the assessment of elementary school programs to the special education preschool. As of November, 1989, she has authored or co-authored 7 funded grants at the Juniper Gardens Children's Project and has developed a staff of 11 and a portfolio of 5 projects currently in progress. These projects include an HCEEP project entitled, The Validation of a Classroom Survival Skills Package, a project within the KU Early Childhood Research Institute, entitled Assessment of Children's Survival Skills and Classroom Requirements, and most recently, a language intervention project, Programmatic Research on Early Childhood Language Program Features. Perhaps more important than these impressive accomplishments, has been the conceptual impact of her work directly in her field, early-child special education.

Her published work over the past five years, has established several major trends which are expanding existing approaches to program evaluation and the development of effective instructional practices. These include the conceptual and methodological foundations for the use of ecobehavioral assessment in early childhood program evaluation. For example, an early publication discussed the potential application of ecobehavioral analysis was published in Topics in Early Childhood Special Education (Carta & Greenwood, 1985). The ecobehavioral observational instrument developed and validated during this project, Ecobehavioral System for Complex Assessments of Preschool Programs - ESCAPE, (Carta, Greenwood, & Atwater, 1985) is currently a basis for her current research and that of several externally funded investigators around the country (e.g., Vanderbilt University, University of Minnesota). The data from the validation of the ESCAPE have been published in several book chapters (e.g., Carta, Greenwood, & Robinson, 1987; Carta, Sainato, & Greenwood, 1988). These data demonstrated that the concepts of academic engagement and of functional relationships between engagement and student outcome measures, well-established in the elementary education literature (e.g., Brophy, 1977; Greenwood, Delquadri, & Hall, 1989), have clear applications within preschool special education programs as well.

A closely related development has been her intervention research focusing on preschool and kindergarten survival skills (Carta & Greenwood, 1988) in which both intervention effectiveness and program evaluation issues have been addressed. For example, she has discussed the issue of the fidelity of treatment in early education programs in the journal Early Education and Development (Carta & Greenwood, 1989). She was invited to discuss process-product research design employed in her work in the Journal of the Division of Early Childhood (Carta & Greenwood, 1987), the application of ecobehavioral assessment to problems in special education, Focus on Exceptional Children (Greenwood & Carta, 1987), and the education of young children in inner-city classrooms (In T. Thompson, & S. Hupp (Eds.), Return us the children: Prevention and early intervention in developmental disabilities, NY: Sage.

More recently, she has produced a number of articles in collaboration with our recent post-doctoral trainees (Bulgren & Carta, Exceptional Children, in press) and with special education graduate students who are working with her (Carta, Atwater, Schwartz, & Miller, in press, Education and Treatment of Children). She has also collaborated with researchers who are working with students with special needs. These collaborations have resulted in the development of an ecobehavioral data base for teachers mainstreaming students with learning disabilities and those responsible for programs for students with autism and developmental disabilities (Kamps, Carta et al., 1989).

Over the past four years she has been invited to present her work at the national OSEP Project Directors meeting in Washington DC, in addition to presentations at professional conferences around the country, and recently the Banff International Conference on Behavioral Science in Canada (Carta, 1987). Most recently she was invited to be an Associate Editor for the journal Exceptional Children and was appointed Program Description Editor for the journal Education & Treatment of Children.

Significance and Impact

Impact

This project directly effected the knowledge, skills and research experiences of 9 minority and non-minority, Ph.D. personnel and an additional 10 from the prior project. The selection and training of these persons was designed to increase the number of qualified minority group leadership personnel who effect programs, research and service, provided to minority handicapped children. This total investment in 18 (10 + 9) Fellows, while seemingly few in number, was really a quantitative leap forward when one considers the number of the national minority group scientific leaders actively pursuing research.

The immediate impact was upon the training and experiences of the Fellows at the project site. The next level of impact, began as they returned to their home employment sites (as documented above) and applied and expanded upon experiences they have had at the Juniper Gardens Children's Project. The long term impact will be in terms of a net increase in the number of research leaders of the highest caliber, with extensive published and externally supported research projects to their credit. This leadership will be felt in the areas of policy, instructional policy, instructional practices, in basic knowledge in research methods, in the direction and topics of research, etc. This project powerfully impacted the shortage of practicing minority research personnel.

Significance

The significance of this project can be seen in several areas. One is that the project provided training in areas that have been voiced by minority and non-minority special education consumer groups alike. We all need the research expertise, the formulation of the right problem, the experiments, the data, etc., that will increase our means to provide appropriate educational experiences to minority handicapped children. The majority of literature in the area of minority issues to date has been from the perspective of values, laws, legislation, and classroom instruction. The research literature in many of the real important areas (and many of these problems have not even yet been scientifically formulated), await researchers with technical skills, the sensitivity, and the commitment to the solution of these problems. In this case, a minority research leadership is needed that can go beyond the level of just raising consciousness, or of pointing to inequalities, or of revealing social injustice in the educational system. What is desperately needed is the careful research program that is designed to address and demonstrate empirical, replicable solutions to the unique problems of minority handicapped children. This project was a contribution to this end.

References

Arreaga-Mayer, C., Carta, J. J., & Greenwood, C. R. (Eds.) (1987). An ecobehavioral approach to research in special education (Vol. 2). Kansas City, KS: The Juniper Gardens Children's Project, Bureau of Child Research, University of Kansas. ERIC (ED 288 297)(EC 200 768)

Arreaga-Mayer, C., Carta, J. J., & Greenwood, C. R. (1990). Development and validation of an evaluation instrument to measure instructional effectiveness of bilingual special education. Bureau of Child Research, Juniper Gardens Children's Project, Kansas City, KS: University of Kansas.

Arreaga-Mayer, C., & Greenwood, C. R. (1986). Environental variables affecting the school achievement of culturally different learners: An instructional perspective. Journal of the National Association for Bilingual Education, 10, 113-135.

Barlow, D. H., & Hayes, S. C. (1979). Alternating treatments design: One strategy for comparing the effects of two treatments in a single subject. Journal of Applied Behavior Analysis, 12, 199-210.

Bulgren, J. A., & Carta, J. J. (submitted). Ecobehavioral assessment of the student with learning disabilities in regular and special classrooms. Exceptional Children.

Carta, J. J., & Greenwood, C. R. (1985). Ecobehavioral assessment: A methodology for expanding the evaluation of early intervention programs. Topics in Early Childhood Education, 5, 88-104.

Carta, J. J., & Grenwood, C. R. (1987, March). How to measure change in early intervention programs using an ecobehavioral approach. Paper read at the XIX Banff International Conference on Behavioral Science, Banff, Alberta, Canada.

Carta, J. J., & Greenwood, C. R. (1989). Establishing the integrity of the independent variable in early intervention programs. Early Education and Development, 1, 125-140.

Carta, J. J., Greenwood, C. R., & Atwater, J. (1985). Ecobehavioral system for complex assessments of preschool environments ESCAPE. Kansas City, KS: Juniper Gardens Children's Project, Bureau of Child Research, University of Kansas.

Carta, J. J., Greenwood, C. R., & Robinson, S. (1987). Application of an eco- behavioral approach to the evaluation of early intervention programs. In R. Prinz (Ed.), Advances in the behavioral assessment of children and families (Vol. 3, pp. 123-155). Greenwich, CT: JAI Press.

Carta, J. J., Greenwood, C. R., & Sainato, D. M. (1988). Ecological variables and the effectiveness of classroom instruction for young children with handicaps. In S. L. Odom & M. B. Karnes (Eds.), Research perspectives in early childhood special education (pp. 217-240).

Carta, J. J., Miller, P. A., & Heitman, R. (in preparation). A comparison of special preschool and regular kindergarten classrooms.

Greenwood, C. R., & Arreaga-Mayer, C. (1985). Preparation of leadership personnel: Post-doctoral program in research with minority handicapped children at the Juniper Gardens Children's Project. Grant to the University of Kansas, by the Special Education Program, U.S. Office of Education (Project # 029DH60019; Grant # G0008630071).

Greenwood, C. R., Arreaga-Mayer, C., & Preston, D. (Eds.) (1985). An ecobehavioral approach to research in special (Vol. 1). Kansas City, KS: The Juniper Gardens Children's Project, Bureau of Child Research, University of Kansas. ERIC (ED 288 296)(EC 200 767)

Greenwood, C. R., & Carta, J. J., (1987). An ecobehavioral analysis of instruction within special education. Focus on Exceptional Children, 19, 1-12.

Greenwood, C. R., Dinwiddie, G., Bailey, V., Carta, J. J., Dorsey, D., Kohler, F. W., Nelson, C., Rotholz, D., & Schulte, D. (1987). Field replication of classwide peer tutoring. Journal of Applied Behavior Analysis, 20, 151-160.

Greenwood, C. R., Preston, D., & Harris, J. (1982). Minority issues in special education: Total information package. Kansas City, Kansas: Department of Special Education, University of Kansas Medical Center.

Kamps, D., Carta, J., Delquadri, J., Arreaga-Mayer, C., Terry, B., & Greenwood, C. R. (1989). School-based research and intervention (pp. 359-390). In C. R. Greenwood (Ed.), Special Issue Devoted to the Juniper Gardens Children's Project, Education and Treatment of Children.

Ollendick, T. H., Matson, J. L., Esveldt-Dawson, K., & Shapiro, E. S. (1980). Increasing spelling achievement: An analysis of treatment procedures utilizing an alternating treatment design. Journal of Applied Behavior Analysis, 13, 645-654.

Sontag, E., Button, J. E., & Hagerty, G. (1982). Quality and leadership in special education personnel preparation. Paper presented at the invitational meeting for personnel preparation, Washington, DC: December.

Ulman, J. D., Sulzer-Azaroff, B. (1975). Multiple baseline design in educational research. In E. Ramp & G. Semb (Eds.), Behavior analysis: Areas of research and application. Englewood Cliffs, NJ: Prentice-Hall, Inc., pp. 337-391.

Walker, D., Hall, R. V., & Greenwood, C. R. (1989). Impact of Juniper Gardens as a community, graduate, and post-graduate training site. Education and Treatment of Children, 12, 405-424.